

CLAIMS

1. An electromagnetic wave shielding filter comprising:
  - a transparent substrate,
  - a metal mesh layer with line parts that define openings of the mesh, laminated to one surface of the transparent substrate by an adhesive layer,
  - a first blackening layer and an anticorrosive layer successively formed on transparent substrate side surfaces of the line parts of the metal mesh layer, and
  - a second blackening layer formed on the front surfaces, on the side opposite to the transparent substrate, of the line parts of the metal mesh layer and on the side faces of the line parts.
2. The electromagnetic wave shielding filter according to claim 1, wherein the second blackening layer contains a nickel alloy.
3. The electromagnetic wave shielding filter according to claim 1, wherein the first blackening layer contains a nickel-chromium alloy.
4. The electromagnetic wave shielding filter according to claim 1, wherein the first blackening layer contains a copper-cobalt alloy, and the second blackening layer contains a nickel alloy.
5. The electromagnetic wave shielding filter according to claim 1, wherein the anticorrosive layer contains a chromium compound.
6. The electromagnetic wave shielding filter according to claim 1, wherein the anticorrosive layer contains chromium and/or zinc.

7. The electromagnetic wave shielding filter according to claim 1, wherein the anticorrosive layer contains a metal other than chromium.

8. A process for producing an electromagnetic wave shielding filter comprising a transparent substrate and a metal mesh layer with line parts that define openings of the mesh, laminated to one surface of the transparent substrate by an adhesive layer, comprising the steps of:

- preparing a transparent substrate and a metal layer,
- successively forming a first blackening layer and an anticorrosive layer on one surface of the metal layer,

- laminating the metal layer, the first blackening layer and the anticorrosive layer to the transparent substrate by an adhesive layer with the anticorrosive layer facing to the transparent substrate,

- photolithographically making, into a mesh, the anticorrosive layer, the first blackening layer and the metal layer that have been laminated to the transparent substrate, thereby forming, in the metal layer, line parts that define openings of the mesh, and

- forming a second blackening layer on surfaces, on the side opposite to the transparent substrate, of the line parts of the metal layer and on side faces of the line parts.

9. The process for producing an electromagnetic wave shielding filter according to claim 8, wherein the step of forming the first blackening layer comprises deposition of a copper-cobalt alloy by electroplating, and

- the step of forming the second blackening layer comprises deposition of a nickel alloy by electroplating.

10. The process for producing an electromagnetic wave shielding filter according to claim 8, wherein the step of forming the anticorrosive layer comprises chromate treatment.

11. The process for producing an electromagnetic wave shielding filter according to claim 8, wherein the transparent substrate comprises a polyethylene terephthalate film, and the step of laminating the anticorrosive layer and the transparent substrate comprises dry lamination.